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FIT Clinical Decision Making

PERCUTANEOUS CLOSURE OF ACQUIRED GERBODE DEFECT: MANAGEMENT OF A RARE COMPLICATION OF CARDIAC SURGERY

Poster Contributions
Poster Hall B1
Saturday, March 14, 2015, 3:45 p.m.-4:30 p.m.

Session Title: FIT Clinical Decision Making: Structural Heart Disease and Pulmonary Hypertension
Abstract Category: TCT@ACC-i2: Invasive Cardiovascular Angiography and Intervention
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Background: Gerbode Defect is a congenital left ventricle (LV) to right atrial (RA) shunt. An acquired form characterized by a direct communication between the left ventricle and right atrium may results as a complication of aortic or tricuspid valve endocarditis or surgery.

Case: A 50-year-old lady with PMH of aortic stenosis related to a bicuspid aortic valve with bioprosthetic valve replacement 8 years ago that was complicated 2 years with prosthetic valve malfunction managed by a St Jude Bileaflet mechanical prosthesis implantation is presenting with 2 months history of recurrent admission for CHF. Transthoracic echocardiography suggested the presence of significant left to right shunting with normal functioning native and prosthetic valves.

Decision Making: Transesophageal echocardiography (TEE) revealed a septal defect between the LV and RA with significant left to right shunting. A CTA of the heart demonstrated the defect just above the septal leaflet of the tricuspid valve and below the anterior leaflet of the mitral valve. The patient was felt to be at high risk for complications if the defect were closed surgically. But giving that closure of the defect is vital to prevent recurrent admission a decision was made to perform a percutaneous closure. Successful closure was achieved using a 12 mm Amplatzer muscular VSD occluder under fluoroscopic and TEE guidance without any impact on either the tricuspid, mitral or the mechanical aortic prosthesis valve.

Conclusion: Although rare, acquired Gerbode defect may results as a complication in repeated aortic or tricuspid intervention resulting in resistant heart failure secondary to significant left to right shunting. Management of this defect in these high-risk patients may be challenging and percutaneous closure, if feasible, may represent the best management option.